

RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation
DT1241 02/2011

INSTRUCTIONS:

Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

WisDOT research program category: <input type="checkbox"/> Policy research <input type="checkbox"/> Other <input checked="" type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Pooled fund TPF#		Report period year: 2014 <input checked="" type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)
Project title: Reflective Cracking Between Precast Prestressed Box Girders		
Project investigator: Upul Attanayake	Phone: 269-276-3217	E-mail: upul.attanayake@wmich.edu
Administrative contact: Carole Nelson	Phone: 269-387-4746	E-mail: carole.nelson@wmich.edu
WisDOT contact: William Oliva	Phone: 608-266-0075	E-mail: william.oliva@dot.wi.gov
WisDOT project ID: 0092-14-01	Other project ID:	Project start date: 8/20/2013
Original end date: October 20, 2015	Current end date:	Number of extensions:

Project schedule status:

☒ On schedule ☐ On revised schedule ☐ Ahead of schedule ☐ Behind schedule

Project budget status:

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
84999	7151	17778	21	41

Project description:

The adjacent precast concrete box beam bridge is the bridge of choice for short and short-to-medium span bridges due to ease of construction, favorable span-to-depth ratios, aesthetic appeal, and high torsional stiffness. This bridge is losing favor primarily because of persisting performance issues such as longitudinal cracking at the shear key locations that reflects to the deck surface. This bridge was first introduced to the U.S. in the 1950's. Design changes have been incorporated since then primarily for improving performance. However, performance problems, specifically the longitudinal deck cracking, still persist. Reflective deck cracking is identified as the leading cause for triggering other distresses that create safety concerns.

This project will document the best practices, develop implementation recommendations, and demonstrate effectiveness of recommendations through a filed implementation.

Progress this quarter (includes meetings, work plan status, contract status, significant progress, etc.):

- Submitted Phase I report with implementation recommendations.
- A very successful progress meeting was held.

Anticipated work next quarter:

- Review literature to identify wearing surface types and guard rail attachment details.
- Get feedback from NYSDOT on proprietary grout materials.
- Identify a site and work with WisDOT to implement the recommended detail.

Circumstances affecting project or budget:

Attach / insert Gantt chart and other project documentation

- Gantt chart is attached.

FOR WISDOT USE ONLY

Staff receiving QPR:	Date received:
Staff approving QPR:	Date approved: